

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION $\boldsymbol{\lambda}$ International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :		(11) International Publication Number: WO 99/36776
G01N 33/53	A1	(43) international Publication Date: 22 July 1999 (22.07.99)
(21) International Application Number: PCT/SE98/02463 (22) International Filing Date: 30 December 1998 (30.12.98)		CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
(30) Priority Data: 9704934-0 30 December 1997 (30.12.9	7) 5	Published SE With international search report. In English translation (filed in Swedish).
(71) Applicant (for all designated States except US): PHARMACIA & UPJOHN DIAGNOSTICS AB [SE/SE]; S-751 82 Uppsala (SE).		
(72) Inventors; and (75) Inventors/Applicants (for US only): MENDEL-HARTVIG, Ib [SE/SE]; Rabeniusvägen 28, S-756 55 Uppsala (SE). ZELIKMAN, Ilya [SE/SE]; Skymningsvägen 56, S-743 32 Storvreta (SE). RUNDSTRÖM, Gerd [SE/SE]; Bruksvägen 16, S-752 41 Uppsala (SE).		E). G
(74) Agents: WIDÉN, Björn et al.; Pharmacia & Upjohn A Dept., S-751 82 Uppsala (SE).	B, Pate	ent
(54) Title: ANALYTICAL METHOD COMPRISING ADDITION IN TWO OR MORE POSITIONS AND A DEVICE AND TEST KIT THEREFOR		
LZ _m LZ _n LZ ₁ DZ (I)		
(57) Abstract		
A method and a device and test kit, respectively, for determination of an analyte in a sample in a flow matrix by means of a transport flow of one or more biospecific affinity reactants, at least one of which is analytically detectable (Reactant*) and one is firmly anchored in the matrix (Reactant I), have the characterizing features that: A. the flow matrix has at least two application zones for liquid (I) wherein a) LZ _n is an application zone for liquid, and n is the position of the application zone LZ _n , b) m is the total number of application zones in which flow is initiated ($m \ge 2$), c) one LZ _n is an application zone for sample (LZ _n ·S) and one LZ _n is for Reactant* (LZ _{n·R} *) with n'' \ge n', d) > is the direction of the flow, e) DZ is the detection zone, and B. flow is initiated by adding liquid to each zone LZ _n . LZ ₁ in such a way that liquid _{n+1} , added to the application zone LZ _{n+1} , is transported through the matrix immediately after liquid _n , added to the nearest downstream application zone LZ _n .		